

Claims

1. Fixing device (1) for a multipolar magnetic ring (10) on a gear (20) intended to be driven in axial rotation by an electric motor (110) and, in particular, on a motor-reducing gear (100), characterised in that it comprises at least one stop element (22a, 22b) fixed to the gear (20), which can engage with an anchor projection (12a, 12b) on the magnetic ring (10) with a coupling direction essentially parallel to the plane of the gear (20), and at least one retaining clip (23) on the gear (20), which can engage, after elastic deformation, with a retaining projection (13) on the magnetic ring (10), with a coupling direction essentially perpendicular to the plane of the gear (20).

2. Fixing device (1) according to claim 1, characterised in that each anchor projection (12a, 12b) and each retaining projection (13) is fixed to the same side wall (14, 15) of the magnetic ring (10) and in that each retaining projection (13) is positioned essentially opposite at least one anchor projection (12a, 12b).

3. Fixing device (1) according to either one of the claims 1 or 2, characterised in that the magnetic ring (10) is open and in that it comprises, on the one hand, two anchor projections (12a, 12b), each of which is respectively fixed to each of its free ends (16a, 16b) and, on the other hand, a retaining projection

(13) positioned essentially at the same distances from said anchor projections (12a, 12b).

4. Fixing device (1) according to any one of the claims from 1 to 3, characterised in that each stop
5 element (22a, 22b) is able to exert an essentially axial pressure stress on the relevant anchor projection (12a, 12b), while each retaining clip (23) cooperates with the relevant retaining projection (13).

5. Fixing device (1) according to claim 4,
10 characterised in that each anchor projection (12a, 12b) comprises an axial bearing surface (17a, 17b) which is tilted downwards in relation to the plane of the magnetic ring (10).

6. Fixing device (1) according to claim 5,
15 characterised in that each stop element (22a, 22b) comprises a concave axial bearing surface (27a, 27b), and in that the axial bearing surface (17a, 17b) of each anchor projection (12a, 12b) is essentially flat.

7. Fixing device (1) according to any one of the
20 claims from 1 to 6, characterised in that the height of each anchor projection (12a, 12b) is essentially lower than the height of the magnetic ring (10), and in that said anchor projection (12a, 12b) is fixed to the bottom of said magnetic ring (10).

25 8. Fixing device (1) according to any one of the claims from 1 to 7, characterised in that the distal part (18a, 18b) of each anchor projection (12a, 12b) is bevelled.

9. Fixing device (1) according to any one of the
30 claims from 1 to 8, characterised in that it comprises

at least one clamping element (40a, 40b, 40c, 40d, 40e) fixed to the gear (20), which can exert an essentially radial pressure stress on a side wall (14, 15) of the magnetic ring (10).

5 10. Fixing device (1) according to claim 9, characterised in that it comprises at least one clamping element (40a, 40b, 40c, 40d, 40e), the pressure stress of which is guided essentially in the coupling direction of at least one anchor projection
10 (12a, 12b) with the relevant stop element (22a, 22b).

 11. Fixing device (1) according to either one of the claims 9 or 10, characterised in that each clamping element (40a, 40b, 40c, 40d, 40e) consists of an elastically deformable outgrowth, the distal part of
15 which (41b, 41c) can cooperate by contact with the relevant side wall (14, 15) of the magnetic ring (10).

 12. Fixing device (1) according to any one of the claims from 9 to 11, characterised in that the clamping elements (40a, 40b, 40c, 40d, 40e) positioned with
20 regard to the same side wall (14, 15) are distributed evenly with regard to the entire length of said side wall (14, 15).

 13. Fixing device (1) according to any one of the claims from 1 to 12, characterised in that it comprises
25 at least one guiding lip (24) fixed to the gear (20), which is essentially complementary to a side wall (14, 15) of the magnetic ring (10).

 14. Fixing device (1) according to any one of the claims from 1 to 13, characterised in that the bottom

face of the magnetic ring (10) is bevelled on the inside and on the outside.

15 15. Fixing device (1) according to any one of the claims from 1 to 14, characterised in that each stop element (22a, 22b) is made at the end of a recess (25a, 25b), which can guide the engagement of the relevant anchor projection (12a, 12b), while the magnetic ring (10) is tilted in relation to the plane of the gear (20).

10 16. Gear (20) intended to be driven in axial rotation by an electric motor (110) and supporting a multipolar magnetic ring (10), characterised in that it comprises at least one fixing device (1) according to the any one of the preceding claims.

15 17. Motor reducer (100), characterised in that it comprises at least one gear (20) according to the preceding claim.

20 18. Windscreen-wiper mechanism, characterised in that it comprises at least one motor reducer (100) according to the preceding claim.

19. Motor vehicle, characterised in that it comprises at least one windscreen-wiper mechanism according to the preceding claim.